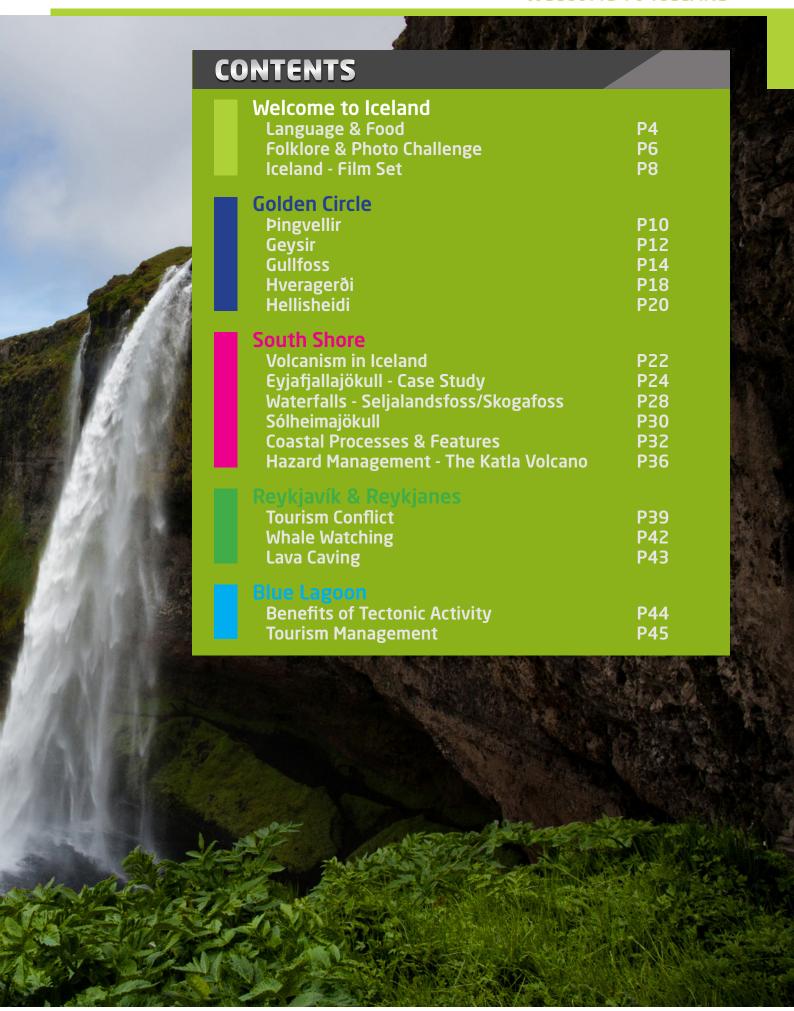


STUDENT WORKBOOK



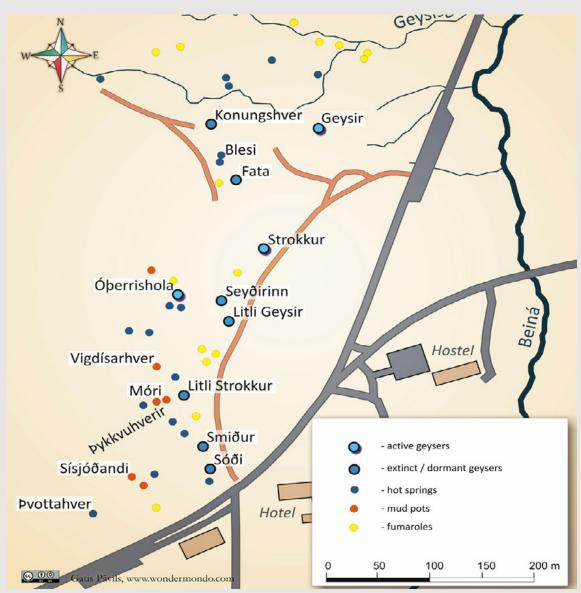


# Geysir

In the UK, the continental crust we live on is at least 50km thick. Around the Golden Circle tour, it's a little bit thinner; well, 48km thinner. This means the mantle is much closer to the surface, thanks to the fact

that much of the crust is new and is characteristic of oceanic crust which is thinner and denser. At the Haukadalur ('Hawk Valley') Geothermal Area (better known as Geysir) we can see how this affects the land.

### **DISCUSSION POINT**



SOURCE: Gatis Pavils, www.wondermondo.com

The features we see here include hot springs, bubbling mud pools, fumeroles (fizzing gas and steam) as well as Geysir's geyser. 'Geysir' literally translates to English as 'gusher' and was adopted by early British tourists as geyser. Areas like this change

as earthquakes cause differences in the rocks and water courses below ground. The great Geysir erupts very, very rarely, but Strokkur ('The Churn') is a reliable sight, erupting every 5-8 minutes. But how do these geysers happen?



# Eyjafjallajökull: Case study of a volcanic eruption

The eruption of this volcano is one you are likely to use as a case study.

### What is it?

First, the most important bit... its name. The volcano itself should really be called Eyjafjöll, and the glacier that sits atop it Eyjafjallajökull, but the longer name is almost always used for both. The name is a word built of three words.

### eyja

### means islands.

Refers to the Vestmann Islands that can be seen out to sea from here.

### fjalla

### means mountains.

The mountain under the glacier reaches a height of 1651m.

### jökull

### means glacier.

The ice cap glacier sitting on top of Eyjafjoll is up to 200m thick.

For some tuition try here:



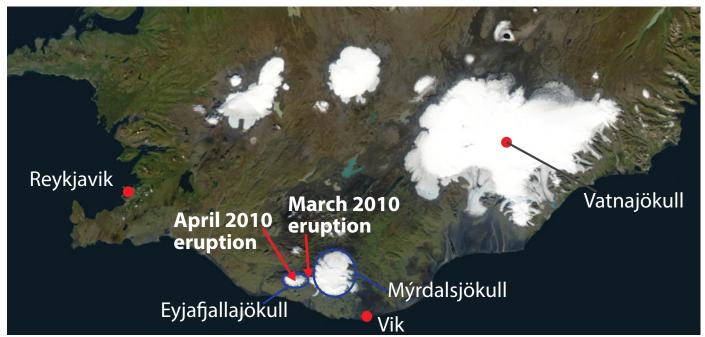
### Pronunciation of Eyjafjallajökull:

You'll sound convincing if you say:

Ayer – fee-atler – yurkutl

### Where is it?

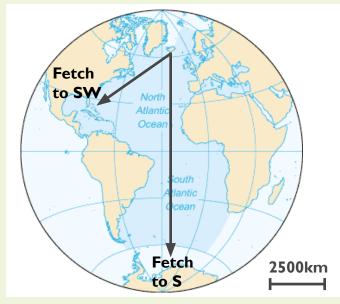
Take a look at the image below which identifies the location of Eyjafjallajökull and recent eruptions. Tectonic activity in Iceland means that divergence is taking place. The constructive boundary builds new crust as the North American and Eurasian plates separate at fingernail-growing speed. Volcanoes such as Eyjafjallajökull are created as magma rises.



# Coastal Processes and Features in Southern Iceland

Southern Iceland's coastline is strewn with spectacular scenery, where the processes and features you learnt about in school are clear to see in reality.

Coastal processes also have a strong impact here, partly due to the effect of the Atlantic Ocean and the force of its energy on the coastline.



### **Fetch in Southern Iceland:**

'Fetch' is the distance over which the wind can blow the waves to build up energy. Southern Iceland has a huge fetch; with prevailing winds from the south-west or the south, there is no land between Iceland and Antarctica. Use the map to the left to estimate fetch from southern Iceland to the south-west and to the south.

# Features and common sequence of erosion at a headland Blowhole Site of arch collapse of headland Stump Lines of weakness Sea cave Undercutting Wave-cut platform exposed at low tide

KEY



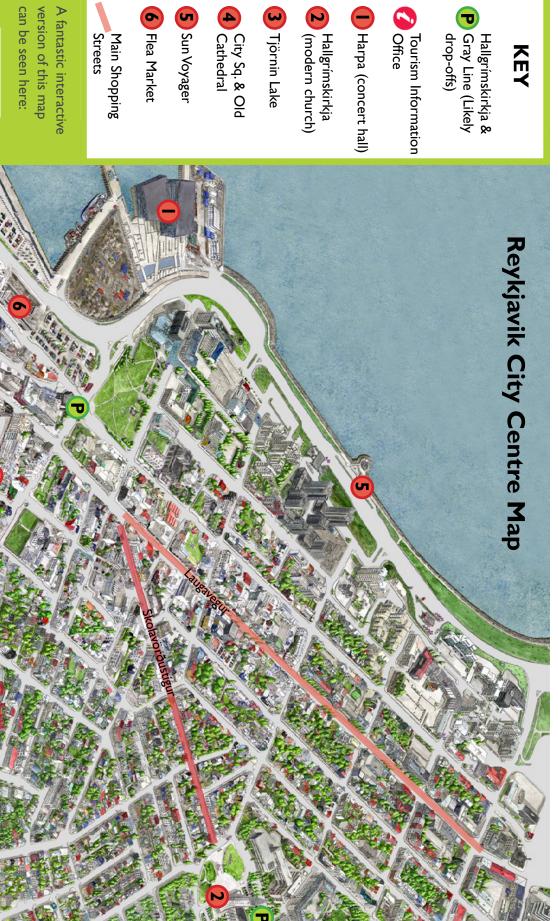
MAP CREDIT: Borgarmynd (Cityscape)

version of this map

can be seen here:

Main Shopping Streets

3 Tjörnin Lake



# **Blue Lagoon**

Known as 'Bláa Lonid' in icelandic, the Blue Lagoon is a swimming, spa and hotel complex on the Reykjanes peninsula. Since opening to the public in 1987, it has become the number one tourist destination in Iceland. Nowadays, 80% of all visitors travelling to Iceland come here.

Including Icelandic visitors (who make up 25% of customers), the Blue Lagoon receives over 700,000 visitors per year. That's close to 2,000 each day. It has expanded significantly in recent years to provide for these numbers.

With tourist numbers to Iceland continuing to show a strong upward trend, the Blue Lagoon's importance as a tourist destination seems set to only rise further.



### **Attractions of the Blue Lagoon to Tourists**



Revellers enjoy a live DJ set at The Blue Lagoon as part of the Iceland Airwaves festival. PHOTO CREDIT: Anders Røeggen

- Accessibility/transport: 96% of visitors to Iceland arrive at Keflavík airport, which is less than 20 minutes away. Presently, visitors travel by rental car or coach, but Iceland is planning its first passenger railway to run between Keflavík airport and the capital, Reykjavík. Such is the economic pulling power of the Blue Lagoon that the intention is to divert the route and include another station at the Blue Lagoon in order to facilitate visitors to stop off there. The capital is only 45 minutes away.
- **Prestige/status:** The Blue Lagoon has increasingly been focused on top-end spenders, adding a quality restaurant, VIP lounge and pricier treatments to their selection.
- Major events: The Blue Lagoon has increasingly diversified with events including corporate conferences and dinners, plus the complex has hosted live bands and DJs as part of the Iceland Airwaves music festival that takes places in and around Reykjavík each November.
- Uniqueness: There is nowhere else like the Blue Lagoon, although if developers have their way, there soon will be another such site near Reykjavík. Visiting the Blue Lagoon gives tourists and locals the opportunity to do something you can't really do anywhere else, giving the complex a unique selling point.



A "silica floating massage" is one of the wide range of treatments available at the Blue Lagoon. PHOTO CREDIT: Bynder